



Australian Government

MSTFD5021 Conduct digital patternmaking and grading

Release: 1

MSTFD5021 Conduct digital patternmaking and grading

Modification History

Release 1. New unit

Application

This unit of competency covers the skills and knowledge required to use digital technologies to produce patterns and conduct grading for fashion designs.

The unit of competency applies to the use of specialised electronic programs and computing equipment to digitise patterns and access existing pattern block libraries to create and grade pattern styles for a set size range.

Work may be conducted in small to large scale enterprises and may involve individual and team activities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Fashion design and technology

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Use appropriate personal protective equipment (PPE) in accordance with standard SOPs
		1.4	Determine job requirements from specifications, job sheets or work instructions

2	Prepare to use electronic design tools	2.1	Interpret measurements and pattern requirements from technical drawings and specifications sheets
		2.2	Identify garment factors that need to be considered
		2.3	Select and prepare suitable software programs and computing equipment
		2.4	Access and prepare digital working space
3	Digitise and modify patterns	3.1	Input manual pattern into program
		3.2	Prepare final pattern pieces for grading and marking
		3.3	Print pattern and assess against design and production specifications
4	Access and modify library patterns	4.1	Access pattern block from library
		4.2	Modify patterns to create design features
		4.3	Produce style from block to meet design requirements
		4.4	Print pattern and assess against design and production specifications
5	Grade patterns using digital techniques	5.1	Grade pattern according to sizing system for identified target group
		5.2	Check all pattern points in preparation for grading
		5.3	Grade block to meet size specifications requirements
		5.4	Use block to make pattern and grade
6	Check and finalise pattern	6.1	Produce graded pattern
		6.2	Assess accuracy and completeness
		6.3	Make adjustments or improvements as required

- 6.4 Create final products and protect, organise and store them according to workplace practices

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Workplace procedures include one or more of the following:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- SOPs
- work instructions
- PPE
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling
- WHS practices

Australian Standards include:

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

Specifications include one of more of the following:

- type of fabric
- width and length of fabric
- size and garment measurements
- pattern details with specific measurements for proportion guidelines
- seam allowance for seams, waist, pocket and hem
- design and make instructions
- base size and size range

- clear, detailed technical drawings

Input manual pattern into program includes the following:

- creating straight and curved seams
- creating extensions for button fastenings
- manipulating darts and edge pivoting to create fullness
- adding simple pleats, tucks and gathers
- creating simple collars
- adding seam and hem allowances to all pattern pieces

Unit Mapping Information

Release 1. New unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTFD5021 Conduct digital patternmaking and grading

Modification History

Release 1. New unit

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria, and include:

- reading and following work instructions, standard operating procedures (SOPs) and safe work practices
- applying relevant standards
- interpreting measurements and pattern requirements from technical drawings and specifications sheets
- identifying garment patternmaking and grading requirements
- selecting appropriate software programs
- inputting manual pattern into digitising program
- accessing pattern block library
- using digital techniques to modify patterns
- using digital techniques to grade patterns according to sizing system for identified target group
- producing graded pattern for at least three (3) items or a small range, such as pants, shirt, bodice, sleeve and skirt
- checking outputs against specifications of design brief and making adjustments according to workplace procedures.
- protecting, organising and storing graded patterns according to workplace procedures.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- work instructions, standard operating procedures and safe work practices
- relevant Australian Standards
- principles of design
- use of technical drawings and specifications sheets
- sizing systems for men, women and children
- use of digital programs and computer hardware
- software programs, such as:
 - computer-aided design (CAD)
 - Gerber Technology
 - StyleCAD

- Lectra Systems
- Optitex
- Adobe Illustrator
- use of grade rule libraries
- use of x and y coordinates
- digitised patternmaking tools and procedures
- seams, including:
 - straight seams
 - curved seams
 - waist
 - pocket
 - hem
 - leg
- operating procedures
- garment production requirements
- designs, patterns and production requirements
- quality standards
- workplace procedures
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
 - have vocational competency in digital pattern making and grading, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.

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